

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

CIVIL ACTION NO. 03-10392-GAO

MYKROLIS CORPORATION,
Plaintiff,

v.

PALL CORPORATION,
Defendant.

MEMORANDUM AND ORDER
January 12, 2005

O'TOOLE, D.J.

I. Background

On April 30, 2004, I granted Mykrolis Corporation's ("Mykrolis") motion for a preliminary injunction enjoining Pall Corporation ("Pall") from infringing, contributorily infringing, and/or actively inducing infringement of Mykrolis' U.S. Patent No. 6,068,770 (the "'770 patent") and U.S. Patent No. 6,378,907 (the "'907 patent"), and further enjoining Pall from making, using, selling, or offering to sell within the United States, or from importing into the United States, the product being sold under the name PhotoKleen™ EZD-2 Filter Assembly (the "EZD-2"), or any colorable imitation thereof, all pending further order. The April 30, 2004 Order was specifically directed to the EZD-2 because that was the product Mykrolis sought to enjoin and was the only Pall product brought to the Court's attention as an accused infringing device at the time. Prior to April 30, 2004 neither party informed the Court that Pall had voluntarily ceased selling the EZD-2 and had replaced it with a new product.

Pall has since informed the Court that in February 2004 – after the preliminary injunction and claim construction hearing, but prior to the issuance of the April 30, 2004 Order – Pall had discontinued marketing and selling the EZD-2 and had instead commercially introduced into the United States new, redesigned filter assemblies that Pall believes avoid infringement of the '770 and '907 patents (the “Redesigned EZD-2”). Pall contends that the Redesigned EZD-2 filter assemblies introduce two significant changes to avoid infringement of the Mykrolis patents: (1) the elimination of the horizontal over-center locking movement in favor of a vertical locking movement that stops short of going over center; and (2) the elimination of the safety button relied upon by Mykrolis as a horizontally acting latch. Therefore, it is Pall’s position that the Redesigned EZD-2 filter assemblies are not colorable imitations of the enjoined products.

Because Pall believes that its Redesigned EZD-2 filter assemblies are not colorable imitations of the enjoined products, it filed a separate declaratory judgment action, Civil Action No. 04-CV-10887-GAO, seeking a declaration (1) of non-infringement of the Mykrolis patents by the Redesigned EZD-2 and (2) of the invalidity of the patents. Mykrolis has moved to dismiss Pall’s complaint in that action, arguing that Pall’s claims there simply duplicate its counterclaim in the present action, so that the second action is merely redundant.

Shortly before Pall filed its declaratory judgment action, I issued the April 30, 2004 preliminary injunction. In response to the injunction, Pall made further structural changes to the Redesigned EZD-2 filter assemblies by eliminating the notch at the rear of the elevating platform and the alignment tab from the filter capsule, but leaving in place the alignment slot on the manifold. Pall incorporated these changes into what it began offering for sale as the PhotoKleen™ EZD-3 Filter Assembly (the “EZD-3”). With the development of the EZD-3, Pall amended its complaint

in the second action to seek a declaration of non-infringement by the EZD-3, instead of the Redesigned EZD-2, as well as continuing to assert the invalidity of the '770 and '907 patents. Pall opposed Mykrolis' motion to dismiss the second action as moot, in light of its amended complaint. The EZD-3 purportedly includes the features of the Redesigned EZD-2 (i.e. elimination of the horizontal over-center locking movement and the safety button) plus the elimination of "automatic" alignment. Pall contends that these modifications take the EZD-3 outside the scope of the present action. Pall has not shipped any EZD-3 retrofit manifolds since April 30, 2004, but has shipped EZD-3 stand-alone manifolds with EZD-3 capsules in the United States. See Mesawich 7/6/04 Decl. ¶ 2; Mesawich 5/27/04 Decl. ¶ 8.

In response to Pall's amendment, Mykrolis filed a second motion to dismiss the amended complaint as duplicative of the counterclaim in the present case and an abuse of the Declaratory Judgment Act, 28 U.S.C. §§ 2201, 2202. Mykrolis contends that the minor changes Pall has incorporated into the EZD-3 do not take it outside the scope of the present action. In opposition, Pall contends that by reason of the removal of the alignment tab from the bottom of its prior EZD-2 filter capsules and the elimination of the notch at the rear of the elevating platform, the EZD-3 is not capable of "automatic alignment," which I had found was "an important aspect of the Mykrolis invention." Thus, Pall argues, the EZD-3 is properly the subject of a separate action. Accordingly, Pall sought clarification from the Court that the enjoined product is the EZD-2 that was at issue during the preliminary injunction hearing and not Pall's Redesigned EZD-2 that was introduced in February 2004 or the EZD-3 developed since April 30, 2004.

Mykrolis argues that, despite Pall's efforts to redesign the EZD-2 to avoid infringement, both the Redesigned EZD-2 and the EZD-3 manifolds fall within the scope of the Court's preliminary

injunction and, in any event, are merely colorable imitations of the original EZD-2. Mykrolis contends that Pall is violating the April 30, 2004 Order by continuing to import and sell the EZD-3 manifold in the United States and is in contempt of court. Pall maintains (1) that the April 30, 2004 Order does not cover the EZD-3, which was designed after and in response to that order; (2) that the modifications incorporated into the EZD-3 present new issues of fact and raise open issues of infringement, which make contempt proceedings inappropriate; and (3) that by eliminating any “automatic” alignment, the EZD-3 avoids infringement of the Mykrolis patents.

A hearing on Pall’s request for clarification and Mykrolis’ motions for contempt and to dismiss was held on July 14, 2004 and I took the matters under advisement. After the July 14, 2004 hearing, but before I had ruled on the motions, Pall modified its manifolds yet again, creating what has been referred to as the “Slotless EZD-3” because it eliminates the slot in the base of the manifolds used to align the filter capsule to the manifold. Pall contends that this most recent modification renders moot Mykrolis’ motion for contempt. In August 2004, Pall reported that it had ceased distributing EZD-3 manifolds with the alignment slot, and is now only distributing Slotless EZD-3 stand-alone manifolds in the United States. Pall believes the Slotless EZD-3 stand-alone manifolds avoid infringement of both claim 3 of the ’770 patent and claim 1 of the ’907 patent.

Also in August 2004, Pall brought to the Court’s attention two Japanese publications that it says raise significant issues as to the validity of both claim 3 of the ’770 patent and claim 1 of the ’907 patent. In light of these references, Pall has moved to dissolve the preliminary injunction. A further hearing was held on Pall’s motion to dissolve. This Memorandum and Order now resolves the outstanding issues.

II. The Parties' Motions for Clarification and Contempt

As the Federal Circuit has stated:

An enjoined party is entitled to design around the claims of a patent without the threat of contempt proceedings with respect to every modified device although he bears the risk that the enjoining court may find changes to be too insubstantial to avoid contempt.

Conversely, where an injunction is written narrowly against a particular infringing device, contempt may, nevertheless, be found on the basis of a modified infringing device. An enjoined party under a narrow decree will not be permitted to escape on a purely "in rem" theory that only a particular device is prohibited, where it is evident that the modifications do not avoid infringement and were made for the purpose of evasion of the court's order. Again, the standard is whether the differences between the two devices are merely colorable.

KSM Fastening Sys., Inc. v. H.A. Jones Co., 776 F.2d 1522, 1526 (Fed. Cir. 1985); see also Additive Controls & Measurement Sys., Inc. v. Flowdata, Inc., 154 F.3d 1345, 1350 (Fed. Cir. 1998) ("Contempt proceedings are appropriate as long as the new issue does not raise a substantial question of infringement.").

After careful consideration of the parties' briefs and affidavits offered in support thereof, and after oral argument, I conclude that the differences between the original EZD-2 and both the Redesigned EZD-2 and the EZD-3 (with the slot) are too insubstantial to avoid violation of the injunction. As discussed in my April 30, 2004 Order, the spring-loaded safety button was not the primary locking means of the EZD-2, so removing it in the Redesigned EZD-2 and the EZD-3 is of no consequence. In addition, as the affidavit of Professor Nayfeh demonstrates, the change made in both the Redesigned EZD-2 and the EZD-3 to the slightly over center locking mechanism of the original EZD-2 is insubstantial. The Redesigned EZD-2 also has the same alignment features as the original EZD-2. Lastly, elimination of the alignment tab on the bottom of the filter capsules for use

in the EZD-3 and the notch at the back of the elevating platform does not raise a substantial question of infringement because one of the primary means for positioning, the slot on the bottom of the manifold, was left in place.

Mykrolis has shown that the Redesigned EZD-2 and the EZD-3 likely infringe at least claim 1 of the '907 patent. Accused products must be compared with the asserted patent claims. Amstar Corp. v. Envirotech Corp., 730 F.2d 1476, 1481-82 (Fed. Cir. 1984). Claim 1 of the '907 patent is directed to a manifold with a "means for positioning," as that term was construed in my prior order. Claim 1 mentions but does not describe the "fluid processing module." The slot in the bottom of both the Redesigned EZD-2 and EZD-3 manifolds acts as a mechanism for positioning and aligning the mating ports of the fluid feed source and fluid outlet conduit, just as does the "means for positioning" described in claim 1 of the '907 patent. The aligning slot serves no useful noninfringing purpose. Despite Pall's contention that it ceased shipping EZD-3 filter capsules with tabs which could interact with the slots on the manifold, Pall did not provide adequate assurance that end users would not be able to make use of the slot to "automatically align" existing EZD-2 filter capsules to the manifold. See e.g., Canon Computer Sys., Inc. v. Nu-Kote Int'l Inc., 134 F.3d 1085, 1089 (Fed. Cir. 1998) ("Even assuming that [Pall] establishes that its [EZD-3] will not infringe under a particular set of controlled circumstances . . . , this has little bearing on whether its [device] will avoid infringement under other foreseeable operating conditions."); Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 622-23 (Fed. Cir. 1995) ("[A]n accused product that sometimes, but not always, embodies a claimed [apparatus] nonetheless infringes."). Although Pall has apparently ceased shipping all versions of the EZD-2 pursuant to the April 30, 2004 Order, it shipped EZD-3 stand-alone manifolds with the slot in the bottom in the United States

after that order was issued, and Pall's Chairman and Chief Executive Officer conveyed to industry analysts that its new product was not restricted by the preliminary injunction. Pall did so at its peril and, for all of these reasons, a finding of contempt is appropriate. See e.g., Stryker Corp. v. Davol Inc., 234 F.3d 1252, 1260 (Fed. Cir. 2001) (affirming district court's finding of contempt where there were no substantial open issues and the defendant sold products insubstantially modified from the enjoined device after entry of the injunction).

In sum, the April 30, 2004 preliminary injunction applies to the EZD-2, the Redesigned EZD-2, and the EZD-3 (with the slot), including their respective manifolds, as these latter two devices are merely colorable imitations of the EZD-2, and Pall's sale of any of those versions of its product after April 30, 2004, constitutes contempt of the injunction. However, as discussed below, questions remain regarding whether Pall's most recent elimination of the slot on the bottom of the EZD-3 affects an element of the patents in suit – specifically, whether the Slotless EZD-3 includes a receptor which aligns the separation module, as in claim 3 of the '770 patent, and whether the Slotless EZD-3 has the required “means for positioning” the inlet and outlet ports of the fluid processing module in fluid tight engagement with the mating ports of the fluid feed source and fluid outlet conduit, as in claim 1 of the '907 patent. These questions are “substantial” enough to be more properly addressed outside the context of the issue of contempt.

III. Pall's Motion to Dissolve the April 30, 2004 Preliminary Injunction

Pall has represented that it is currently distributing only Slotless EZD-3 stand-alone manifolds in the United States. As noted above, I have determined that the Slotless EZD-3 manifolds raise substantial questions concerning infringement of the Mykrolis patents. I also conclude, however, that the Japanese references presented in connection with Pall's motion to dissolve raise substantial questions about the validity of the Mykrolis patents.

At the preliminary injunction stage, Pall need not prove actual invalidity by clear and convincing evidence, as it would be required to do on summary judgment or at trial. See Amazon.com, Inc. v. Barnesandnoble.com, Inc., 239 F.3d 1343, 1358-59 (Fed. Cir. 2001) (“Validity challenges during preliminary injunction proceedings can be successful, that is, they may raise substantial questions of invalidity, on evidence that would not suffice to support a judgment of invalidity at trial.”). The question at this stage is whether Pall has cast enough doubt on the validity of the Mykrolis patents such that it can no longer be said that Pall’s defense lacks substantial merit. Id. at 1350-51, 1360; New England Braiding Co. v. A.W. Chesterton Co., 970 F.2d 878, 883 (Fed. Cir. 1992). I conclude that Pall has successfully done so.

I reject Mykrolis’ contention that Pall’s discovery of these references does not amount to “changed circumstances” warranting reconsideration of the preliminary injunction. At the preliminary injunction stage, “the trial court does not resolve the validity question but rather must . . . make an assessment of the persuasiveness of the challenger’s evidence, recognizing that it is doing so without all evidence that may come out at trial.” New England Braiding, 970 F.2d at 882-83. Where, as here, newly discovered prior art is brought to the court’s attention, the court remains free to reassess the persuasiveness of the challenger’s evidence in order to determine whether to modify or dissolve a preliminary injunction as justice requires. In these circumstances, it is appropriate to consider whether the injunction should remain in place based on a now fuller record.

Pall contends that the Japanese Sumitomo references anticipate claim 1 of the ’907 patent and render obvious claim 3 of the ’770 patent. Both the Sumitomo ’201 reference and the Sumitomo ’200 reference (Japanese Kokai Patent Application No. Hei 5[1993]-154201 and 154200), as

embodied in the MO-2000 Medical Oxygen Generator, appear to contain all of the elements and limitations of claim 1 of the '907 patent. I accept the proposition that the term "fluid" can encompass both liquids and gases. Paul Decl. ¶ 7. Natural gas, for example, becomes a liquid at cryogenic temperatures. The parties' dispute centers on whether the Sumitomo references contain the required "means for positioning" in claim 1 of the '907 patent. I have previously construed this term to mean "a mechanism for positioning and aligning the inlet and outlet ports of the fluid processing module in fluid tight engagement with the mating ports of the fluid feed source and fluid outlet conduit, respectively." In the Sumitomo references, that mechanism includes guide 30 and guide rabbet 31, which receive the head portion of the humidifier (or fluid processing module) and position and align inlet port 10 and outlet port 9 of the humidifier with corresponding inlet plug 13 and outlet plug 11 for fluid tight engagement. In the Sumitomo '201 reference, engagement occurs as the connection support base 19 is lowered. In the Sumitomo '200 reference, engagement occurs as the humidifier is pushed further back. Accordingly, the Sumitomo references appear to anticipate claim 1 of the '907 patent.

Claim 3 of the '770 patent may also be obvious in light of the Sumitomo references. There are substantial questions of fact concerning whether the Sumitomo references are analogous prior art for obviousness purposes. "Two separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." In re Bigio, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Defining the pertinent prior art as filtration devices or fluid

separation devices generally is too broad. See e.g., Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 716 (Fed. Cir. 1991). A plausible description of the field of endeavor of the Mykrolis patents is fluid separation devices having an easily replaceable and disposable fluid separation module, though the field could arguably be limited to such devices as are used in industrial processes or the manufacturing environment, as opposed to medical applications. Such a limitation would be consistent with the specifications of the Mykrolis patents. Nonetheless, the Federal Circuit has suggested that the analogous art is more properly determined by reference to the structure and function of the invention as perceived by one of ordinary skill in the art, rather than by the application of the invention to any one particular use. See Bigio, 381 F.3d at 1325-26; In re Deminski, 796 F.2d 436, 442 (Fed. Cir. 1986). Important distinctions could also be made between the process of separating fluids versus humidifying gas. I need not resolve these issues at this point in time because the Sumitomo references appear to at least be reasonably pertinent to the problem the Mykrolis inventions sought to solve.

Because the Sumitomo references appear to anticipate claim 1 of the '907 patent, their pertinence to the '770 patent certainly seems reasonable. In any event, the Sumitomo references and the Mykrolis patents are essentially directed to the same problem—connecting a fluid processing module in fluid tight engagement with a fluid feed source, while permitting quick and easy change-out of the fluid processing module. See In re GPAC, Inc., 57 F.3d 1573, 1579 (Fed. Cir. 1995). In both the Mykrolis patents and the Sumitomo references, the means for receiving, aligning and retaining the fluid processing module is not necessarily dependant on whether the medium inside the module is liquid or gas or is being separated or humidified. I recognize that important concerns over the reduction of time, spillage and contaminants during filter change-out are driving factors in

the creation of filtration devices for the semiconductor manufacturing industry, perhaps more so than in the medical equipment industry. But the problem should not be as narrowly defined as Mykrolis suggests. Suffice it to say that an inventor seeking to create a fluid separation system for the semiconductor fabrication industry that utilizes a disposable separation module with quick connect capability may well have been motivated to consider the Sumitomo references alone or in combination with fluid filtration devices like the Ogden patent (U.S. Patent No. 3,727,764).

IV. Conclusion

For the foregoing reasons, I conclude:

A. Sale by Pall of the EZD-2, the Redesigned EZD-2, and/or the EZD-3 after the issuance of the preliminary injunction through the date of this Order constituted contempt of the Court's April 30, 2004 Order. As a penalty for that contempt, Pall is hereby ORDERED (1) to pay Mykrolis' attorneys' fees and costs incurred in responding to Pall's motion for clarification (Docket No. 69) and in bringing its motion for contempt (Docket No. 77); (2) to provide an accounting for all sales of the three identified versions of the infringing product within the United States from April 30, 2004 to the date of this Order; and (3) to disgorge to Mykrolis the amount of net profit attributable to such sales, computed on a basis consistent with Pall's historical computation and accounting for such profits. As to the award of attorneys' fees, Mykrolis is directed to submit a detailed application for the fees and costs within thirty days of the entry of this Order. Any opposition or other response from Pall shall be filed fourteen days after the service of Mykrolis' application. Pall's accounting shall be served on Mykrolis (but need not be filed with the Court) not later than thirty days from the entry of this Order, accompanied by a tender of the sum of the net profits, as shown by the accounting.

B. Pall has cast enough doubt on the validity of the Mykrolis patents with the production of the Sumitomo references that it can no longer be said that Pall's invalidity defenses lack substantial merit. In light of the Sumitomo references, there are also substantial questions as to whether the Slotless EZD-3 infringes the Mykrolis patents. Accordingly, Pall's motion to dissolve the preliminary injunction previously entered is GRANTED, and the April 30, 2004 preliminary injunction is hereby DISSOLVED.

C. Mykrolis' motions to dismiss the second action are DENIED. The two actions, Docket Nos. 03-10392-GAO and 04-10887-GAO are CONSOLIDATED for all purposes. All filings shall occur in the earlier docketed case.

It is SO ORDERED.

January 12, 2005
DATE

George E. Ing
DISTRICT JUDGE